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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/780,766 02/09/2001 Kristopher K. Neild TI-30306 6614

23494 7590 01/28/2003

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EXAMINER

THAI, LUAN C

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/780,766

Applicant(s)

NEILD ET AL.

Examiner

Luan Thai

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 15 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-8, 12 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/09/01 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office action is responsive to the amendment filed December 09, 2002.

Claims **1-15** are pending in this application.

Claims **14-15** have been withdrawn from the consideration as being directed to a non-elected invention (paper No. 4).

Drawings

1. The drawings are objected to under 37 CFR 1.83(a), as set forth in the previous Office Action paper Number 6 and now repeated. The drawings must show every feature of the invention specified in the claims. Therefore, the limitation "a circuit board" in claim 1 and the limitations "a plurality of plastic frame parts" in claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Noted that Applicant's Figure 1E shows only a component board 140 but it does not show a circuit board, wherein both a component board and a circuit board are claimed in claim 1. Further, Applicant's Figure 1A shows a rectangular planar frame 100 but it does not show "a plurality of plastic frame parts" as claimed in claim 11.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Amico (5,221,209) in view of Vratny (Reg. Number: H13), as set forth in the previous Office Action paper Number 5 and now repeated.

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claims 1-3, D'Amico disclose (see specifically figures 1, 2A-2B, and 8A-8C) a header 12 for connecting an electronic components board 14 to a circuit board (PCB), comprising: a plurality of sidewalls joined together to form a planar frame around an area substantially the same as the area of the components board, the frame having first and second surfaces; a plurality of geometric features 41/43 in the first surface, suitable for aligning the frame to the component board; selected sidewalls having a plurality of openings 34 (see figures 2A-2B) extending from the first to the second surface; a plurality of metal pins 18-20-22-24 intended for assembly to the circuit board, each of the pins having a first end and a second end; the first end of each of the pins located in one of the openings, respectively, such that it extends a pre-determined length from the first surface, the length equal for each of the pins; and the second end of each of the pins protruding from the second surface. D'Amico does not explicitly disclose the sidewalls 12 being made of plastic. (Note that the elements 50-46, disclosed in D'Amico's figures 2A, 3Aa-3E, can be considered as the claimed "pins").

Plastic, however, is a well-known material in the art for making the sidewalls, as disclosed by Vratny (Col. 3, lines 51+). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use plastic for forming the sidewalls in D'Amico's structure, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 9-10, D'Amico further discloses the geometrical features being bumps 43 or dimples 41 (see figure 2A).

Regarding claim 11, D'Amico further discloses a plurality of frame parts 42 spacing the header from the circuit board.

Allowable Subject Matter

4. Claims 4-8 and 12-13 are allowed.
5. The following is an examiner's statement of reasons for allowance: none of the prior art whether taken singularly or in combination to teach: a) the first ends of the pins protrude a length of about 0.3 to 0.4 mm, as recited in claim 4; b) the first ends of the pins having surfaces wettable by solder, as recited in claim 5; c) the plastic material of the frame being DMS Stanyl TE250F6, as recited in claim 6; d) the sidewalls thickness being in the range from about 0.9 to 1.2 mm for sidewalls without pin openings, and from 2.7 to 3.0 mm for sidewalls with pin openings, as recited in claim 8; and f) a tab attached to the sidewalls for handling the frame by pick-and-place machines and

removable after the handling, as recited in claim 21, especially when these limitations are considered within the specific combination claimed.

Response to Arguments

6. Applicant's arguments filed on December 09, 2002 (regarding claims 1-3 and 9-11) have been fully considered but they are not persuasive. Specifically:

a) Applicant argues, in page 6, lines 9-11, of the Remarks, that ***the component board is shown as element 140 in Figure 1E***, and that the plastic frame parts are shown as element 100 in figure 1A.

In response, Applicant is noted that Figure 1E *shows only the component board 140 (not a circuit board)*, wherein both "a component board" and "a circuit board" are claimed in claim 1. Furthermore, Applicant's Figure 1E *shows a rectangular planar frame 100* while claim 11 recites "***a plurality of plastic frame parts***". Thus, the drawings are still objected to under 37 CFR 1.83(a).

b) Applicant argues, in the last paragraph of page 6 of the Remarks, that D'Amico reference does not disclose "a plurality of metal pins intended for assembly to the circuit board" as defined in independent claim 1. The Examiner respectfully disagrees. D'Amico reference does disclose (see figures 1, 2A and 8A) a plurality of metal pins 18-20-22-24 intended for assembly to the circuit board (PCB), as claimed in claim 1.

c) In response to applicant's argument, in the second paragraph of page 7 of the Remarks, that ***the socket assembly***, as disclosed by D'Amico, ***does not permanently attach to the leaderless component to the PCB***, it is noted that

the features upon which applicant relies (i.e., the socket assembly **does not permanently attach to the leaderless component to the PCB**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

d) Applicant argues, in the first paragraph of page 7 of the Remarks, that D'Amico reference discloses a contact socket assembly 12 comprising a raised outer frame 32 to be substantially rectangular, instead of a header frame, as claimed in claim 1. Although D'Amico does not label the frame 12 to be "a header frame" as Applicant's claimed, D'Amico's contact socket assembly 12 does not distinguish from the claimed structure. Further, the labels nonetheless are meaningless. The D'Amico's structure anticipates Applicant's claimed structure regardless of whether the frame is labeled "a header frame". See *In re Pearson*, 181 USPQ 642; *Fx parte Minks* 169 USPQ 120; or *In re Swinehart* 169 USPQ 226, all of which make it clear that mere "labels" or "statements of intended use" as we have here in "header frame" do not distinguish over D'Amico's contact socket assembly 12 which may be likewise labeled.

Conclusion

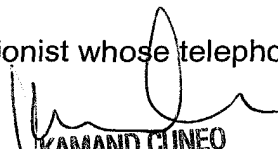
7. Applicant's amendment filed on December 09, 2002 (regarding claims 1-3 and 9-11) has been fully considered but they are not persuasive. Therefore, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luan Thai whose telephone number is (703) 308-1211. The examiner can normally be reached on 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (703) 305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Luan Thai
January 22, 2003